Remarks

Claims 8, 10, 15, 16, 18, 22 and 27 are amended. Claims 1-7, 9, 14, 15, 17, 21 and 24-26 are canceled. New claims 31-37 are added herein. Claims 8, 10-13, 16, 18-20, 22, 23 and 27-37 will be pending upon entry of this amendment.

The following remarks are responsive to the Office action mailed August 29, 2005.

Response to Rejection of Claims under 35 USC §112

The claims are amended to eliminate the term "reduced stiffness." Rather the claims as now presented recite that the stiffness in the cross direction is less than the stiffness in the machine direction. The claims as no presented are submitted to satisfy the requirements of 35 USC §112.

Discussion of New Claims

Claim 31

Claim 31 corresponds to claim 7 rewritten into independent form including all of the elements of canceled claims 1 and 2. Claim 7 was rejected in the present Office action as being obvious in view of U.S. Patent No. 6,093,663 (Ouellette et al.) in combination with U.S. Patent No. 2,161,539 (Swartz).

Claim 31 is directed to an absorbent article for absorbing body fluids comprising:

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands

crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than the stiffness of the absorbent core in the machine direction, wherein the MD strands are elongate and are spaced according to a first spacing frequency, and at least some of said CD strands have as a characteristic difference a second spacing frequency different from the first spacing frequency, **the second reduced frequency spacing of the CD strands being varied in different zones of the elongate MD strands to provide a variance in stiffness between such zones.**

Figures 2C and 10 of the present application are general illustrations of an embodiment constructed according to the features of new claim 31. The frequency of the spacing of the CD strands (784) is varied such that, for example, a single control zone (787) may be located along the line of the MD strands (782) to form a more pliable crotch area of the diaper. *See* specification, page 30, paragraph **[0079]**.

Claim 31 is submitted to be non-obvious and patentable over the references of record, and in particular Ouellette et al. in view of Swartz, in that whether considered alone or in combination, the references fail to show or suggest MD strands spaced at a first spacing frequency, CD strands spaced at a second spacing frequency different from the first spacing frequency of the MD strands, wherein the second spacing frequency of the CD strands is varied in different zones of the MD strands to provide a variance in stiffness between the zones.

Combining the teachings of Ouellette et al. with the teachings of Swartz fails to show or suggest all of the elements

of claim 31. Ouellette et al. teach a first fabric (22) attached to a mesh (24) having strands (29) extending in a cross direction. As acknowledged by the Office, Ouellette et al. does not teach or suggest varying the spacing of these strands (29) in different zones of the fabric. Swartz teaches making sections 6 and 7 of the diaper **more absorptive** by spacing the **warp yarns** (i.e., absorbent fibers) closer together at the crotch section than at the end sections. Swartz discloses nothing about 1) CD strands of a scrim or 2) the stiffness of the absorbent core in the cross direction, by itself or relative to a stiffness in the MD direction. Thus, at most, combining the teachings of Ouellette et al. with the teachings of Swartz would yield an elastic laminate structure having a first fabric layer (22) with more absorptive fibers (i.e., yarns) toward the center of the CD strands (29) than at the edges. Combining the teachings would not yield a laminate structure with varying spacing of the CD strands (29).

The other references of record similarly fail to show or suggest all of the elements of claim 31.

Claims 3-6, 8, 15, 16 and 27-30 depend either directly or indirectly from new claim 31 and are submitted to be patentable over the references of record for at least the same reasons as claim 31.

Claim 32

Claim 32 corresponds to claim 9 rewritten into independent form including all of the elements of canceled claim 1. Claim 9 was rejected in the present Office action as being obvious in view of Ouellette et al. in combination with WO 95/34264 (Melbye).

Claim 32 is directed to an absorbent article for absorbing body fluids comprising:

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than the stiffness of the absorbent core in the machine direction, wherein said MD strands have strand diameters, and wherein said **CD strands have as a characteristic difference a strand diameter less than said MD strand diameter.**

Claim 32 is submitted to be non-obvious and patentable over the references of record, and in particular Ouellette et al. in view of Melbye, in that whether considered alone or in combination, the references fail to show or suggest CD strands having diameters less than the diameters of the MD strands.

As acknowledged by the Office, there is nothing in Ouellette et al. that teaches or suggests CD strands having a strand diameter less than the MD strand diameter. Instead, Ouellette et al. teach the MD strands having diameters less than the CD strands.

Melbye teaches an elastic sheet-like composite including sheets of flexible material secured to elongate elastic strands (16). The elastic strands all extend in the same direction, e.g., an MD direction, and there is no disclosure that the

strands can form or be part of a scrim or a mesh-like component that also includes CD directed strands. Melbye thus fails to provide any teaching or motivation to modify the CD strands of Ouelette et al. to have diameters less than the MD strands thereof, particularly because Melbye does not show or suggest both CD and MD strands. Rather, Melbye only teaches providing MD strands, there being no CD strands even disclosed or suggested by Melbye.

The disclosure in Melbye that "thinner fibers lead to a more elastic fiber than those of a thicker diameter" (as relied upon in the Office action at page 9, point 12a) does not in any way teach or suggest making the CD strands of Oulette et al. to have diameters smaller than the diameters of the MD strands. Rather, the cited passage at best suggests that the MD directed strands of Ouelette et al. may be made more elastic by making them thinner, which presumably would make the diameters even smaller than the diameters of the CD strands, not larger.

Further, there is also nothing in Ouellette et al. that would motivate one to switch the CD and MD strands such that the CD strands would have a diameter less than the MD strands because Ouellette et al. are not concerned with the stiffness of an absorbent core in the cross direction, and therefore one would not be motivated by its teachings to make the diameters of the CD strands less then the diameters of the MD strands to lessen the stiffness of an absorbent core in the cross direction. Thus, there is no motivation to make the CD strands have a diameter less than the MD strands to make an absorbent core less stiff in the cross direction.

The other references of record similarly fail to show or suggest all of the elements of claim 32.

For these reasons, claim 32 is submitted to be non-obvious and patentable over the references of record.

Claims 10-13 depend either directly or indirectly from claim 32 and are submitted to be patentable over the references of record for at least the same reasons as claim 32.

Claim 33

Claim 33 corresponds to original claim 14 rewritten into independent form including all of the elements of claim 1. Claim 14 was rejected in the present Office action as being obvious in view of Ouellette et al. in combination with Melbye.

Claim 33 is directed to an absorbent article for absorbing body fluids comprising:

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than the stiffness of the absorbent core in the machine direction, wherein both of said MD strands and said CD strands are round, and the CD strands are smaller than the MD strands.

Claim 33 is submitted to be non-obvious and patentable over the references of record, and in particular Oulette et al. in combination with Melbye, for substantially the same reasons as set forth in connection with claim 32. That is Ouellette et al.

disclose the MD strands being smaller than the CD strands, and Melbye is directed only to MD strands. Thus, a combination of the references fails to show or suggest the CD strands being smaller than the MD strands. Moreover, one would not be motivated by Melbye to modify Oulette so that the CD strands are smaller than the MD strands as recited in new claim 33.

The other references of record similarly fail to show or suggest all of the elements of claim 33.

For these reasons, claim 33 is submitted to be non-obvious and patentable over the references of record.

Claim 34

Claim 34 corresponds to original claim 17 written into independent form including all of the elements of claim 1. In addition, claim 34 also recites that the CD strands are continuous. In other words, the CD strands are not severed completely through along their lengths. Claim 17 was rejected in the present Office action as being obvious in view of Ouellette et al. and U.S. Patent No. 5,622,581 (Ducker et al.).

Claim 34 is particularly directed to an absorbent article for absorbing body fluids comprising

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed

with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than the stiffness of the absorbent core in the machine direction, wherein the network of MD strands and CD strands is formed with at least some of the CD strands being **continuous** and having **weakened points** along their lengths to enhance buckling.

Claim 34 is submitted to be patentable over the references of record, and in particular Ouellette et al. in view of Ducker et al., in that whether considered alone or in combination, the references of record fail to show or suggest a network of MD strands and CD strands formed with at least some of the CD strands being **continuous** and having weakened points along their lengths to enhance buckling.

Combining the teachings of Ouellette et al. with the teachings of Ducker et al. fails to show or suggest a network of MD strands and CD strands formed with at least some of the CD strands being **continuous** and having weakened points along their lengths to enhance buckling. As acknowledged by the Office, Ouellette et al. fail to show or suggest weakening of CD strands to enhance buckling. Ducker et al. teach de-elasticizing elastic strands to eliminate elastic tension in the finished product. After being de-elasticized, the strands are no longer continuous but are 'macerated", which means, according to *Webster's Dictionary*, that they are "separated into constituent elements". Therefore, combining the teachings of Ouellette et al. with the teachings of Ducker et al. would yield, at most, CD strands being cut through (i.e., macerated) such that the strands are no longer continuous as recited in new claim 34.

The other references of record similarly fail to show or suggest all of the elements of claim 34.

For these reasons, claim 34 is submitted to be non-obvious and patentable over the references of record.

Claim 35

Claim 35 corresponds to original claim 21 rewritten into independent form including all of the elements of claims 1, 17 and 18. Claim 21 was rejected in the present Office action as being obvious in view of Ouellette et al. and Ducker et al.

Claim 35 is directed to an absorbent article for absorbing body fluids comprising

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than a stiffness of the absorbent core in the machine direction, wherein the network of MD strands and CD strands is formed with at least some of the CD strands having weakened points along their lengths to enhance buckling, wherein the CD strands are notched, abraded and/or compressed at predetermined places **between** preselected MD strands to provide the weakened points, and wherein the weakened points on the CD strands are cut through, and such weakened points on one CD strand **offset** from the weakened points on an adjacent CD strand.

The elements of claim 35 are generally illustrated in Fig. 8 of the present application. As can be seen in Fig. 8, the CD strands are cut between preselected MD strands and the weakened points on one CD strand are **offset** from the weakened points on an the adjacent CD strand. Therefore, effectively each section of a CD strand that is formed by cutting will remain connected to at least two adjacent MD strands, as shown in the Figure. Otherwise, if the weakened points were not offset, the CD strands would not provide any stiffness or rigidity to the absorbent core in the cross direction.

Claim 35 is submitted to be non-obvious and patentable over the references of record, and in particular Ouellette et al. in view of Ducker et al., in that whether considered alone or in combination, the references fail to show or suggest CD strands that are notched, abraded or compressed at predetermined places **between** preselected MD strands to provide the weakened points and such weakened points on one CD strand that are **offset** from the weakened points on an adjacent CD strand.

Ducker et al. do not disclose a scrim or mesh; therefore, Ducker et al. cannot teach that the weakened points on one CD strand are **offset** from the weakened points on an adjacent CD strand. Ducker et al. merely teach cutting the elastic strands in the crotch region of diapers. There is no teaching or suggestion of weakening CD strands such that weakened points on one CD strand are **offset** from the weakened points on an adjacent CD strand. Moreover, as explained above, Ducker et al. teach "de-elasticizing" and "deactivating" the elastic strands (12). Thus, combining the teachings of Ouellette et al. with the teachings of Ducker et al. would yield a mesh with the weakened points on one CD strand not offset from weakened points on an adjacent CD strand. Instead, each CD strand would be cut at

every location between two adjacent MD strands in order to make the strands de-elasticized and deactivated. Otherwise, if the CD strands were not cut at every location between two adjacent MD strands then the CD strands would maintain an elastic quality and would not be de-elasticized and deactivated.

The other references of record similarly fail to show or suggest all of the elements of claim 35.

For these reasons, claim 35 is submitted to be non-obvious and patentable over the references of record.

Claim 36

Claim 36 corresponds to original claim 24 rewritten into independent form including all of the elements of original claim 1. Claim 24 was rejected by the present Office action as being obvious in view of Ouellette et al.

Claim 36 is directed to an absorbent article for absorbing body fluids comprising:

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than the stiffness of the absorbent core in the machine direction, wherein the **CD strand is corrugated**

and forms peaks and valleys along the cross direction thereof, and said MD strands being arranged to engage the CD strands across the peaks and valleys thereof.

Claim 36 is submitted to be non-obvious and patentable over the references of record, and in particular Ouellette et al., in that whether considered alone or in combination, the references fail to show or suggest **CD strands** being corrugated and forming peaks and valleys along the cross direction thereof, and MD strands being arranged to engage the CD strands across the peaks and valleys thereof.

As acknowledged by the Office, Ouellette et al. do not teach CD strands being corrugated, but instead teach MD strands being corrugated. The Office opines that making the CD strands corrugated would have been obvious because "the skilled artisan would have been motivated by the desire to provide the MD fibers with a larger diameter yielding a stiffer fiber and enhanced tensile strength, which provides greater physical integrity for the article." Applicants disagree because there is no such motivation found in either Ouellette et al. or the other references of record. In fact, it appears that the Office is using impermissible hindsight and applying the teachings of the present invention as motivation for modifying the teachings of Ouellette et al. Ouellette et al. only teach MD corrugated strands and do not provide any teaching or suggestion as to why one skilled in the art would seek to make the CD strands corrugated instead of the MD strands. Only the present application provides suitable motivation (i.e., providing a reduced stiffness in the cross direction) for doing so.

For these reasons, new claim 36 is submitted to be non-obvious and patentable over the references of record.

Claim 37

New claim 37 corresponds essentially to original claim 25 rewritten into independent form including all of the elements of original claim 1, except that claim 37 recites that that the CD strands are woven "under and over" the MD strands to clarify what is meant by being woven. Original claim 25 was rejected in the present Office action as being anticipated by Ouellette et al.

Claim 37 is particularly directed to an absorbent article for absorbing body fluids comprising:

an absorbent core constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than a stiffness of the absorbent core in the machine direction, wherein the CD strands are **woven** under and over the MD strands.

An example of an absorbent core constructed according to the principles of claim 37 is illustrated in Figs. 12A and 12B and described on page 31, paragraph **[0081]** of the present application. Figure 12B best shows the weaving of the strands.

Claim 37 is submitted to be unanticipated by and patentable over the references of record, and in particular Ouellette et al., in that whether considered alone or in combination, the references fail to show or suggest CD strands **woven under and over** the MD strands.

Ouellette et al. does not teach or suggest CD strands woven under and over MD strands. The MD strands are merely running along the tops of the CD strands. The strands are not woven. Moreover, there is no motivation found in either Ouellette et al. or the other references of record to modify the teachings of Ouellette et al. to weave the CD strands over and under the MD strands.

The other references of record similarly fail to show or suggest all of the elements of claim 37.

For these reasons, claim 37 is submitted to be unanticipated by and patentable over the references of record.

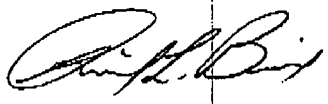
Conclusion

In view of the foregoing, favorable consideration and allowance of claims 8, 10-13, 16, 18-20, 22, 23 and 27-37 is respectfully requested.

The Commissioner is hereby authorized to charge the amount of $920.00 to Deposit Account No. 19-1345 in payment for the fees of a one (1) month extension of time and four (4) added independent claims.

The Commissioner is hereby authorized to charge any deficiency or overpayment of the required fee to Deposit Account No. 19-1345.

Respectfully submitted,



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